The official voice of the Air Force Research Laboratory
news@afrl
Features
March 2002

IF technology demonstrated in criminal activity application

by Fran Crumb, Information Directorate

ROME, N.Y. —Researchers at the Air Force Research Laboratory's Information Directorate have successfully demonstrated advanced voice processing technology designed to reduce telephone criminal activity by inmates at state and federal prisons.

Funded by the National Institute of Justice (NIJ), scientists and engineers with the directorate and Research Associates for Defense Conversion of Marcy, N.Y., jointly developed and demonstrated an experimental model capability that automatically extracts information from conversational speech. This technology will address a troublesome telephone problem within both federal and state prisons. Previous studies concluded that prisoners are using telephones on a large scale to continue illegal activity that is both dangerous and expensive to the public.

The AFRL information extraction capability, called TADD (Telephone Abuse Detection Demonstration), was developed to detect a variety of criminal activity conducted over prison telephones, including credit card fraud, drug solicitation, harassment, and threats to witnesses and victims. TADD utilizes several audio technologies to detect and recognize certain criminal activities. Test results on a controlled database of conversations, collected over the type of phones used in the prisons, demonstrated performance 76 to 100 percent successful in detecting the targeted criminal activities. This technology has the potential to save hundreds of millions of dollars in telephone monitoring costs over current methods used to monitor the more than 100,000 calls made each day by inmates at federal prisons. And, while TADD was developed for the NIJ and the Federal Bureau of Prisons, the technology also has direct information extraction application to the Air Force intelligence, surveillance, and reconnaissance (ISR) monitoring mission and to military communication security. **@**